IVANOV, N.A., prof.; GRUZDEV, V.F.; MATUSHKINA, L.Ye. (Leningrad)

Treatment of some dermatoses by immersion baths. Vrach.delo no.3:311-313 Mr '59. (MIRA 12:6)

1. Dermatologicheskaya kafedra (nachal'nik kafedry - prof. polkovnik med.sluzhby S.Ye.Gorbovitskiy), Voyenno-meditsinskoy akademii imeni S.M.Kirova.
(SKIN--DISEASES) (BATHS, MEDICATED)

IVANOV, N.A., prof.; MATUSHKINA, L.Ye.; GRUZDEV, V.F. (Leningrad)

Combined X-ray therapy (effect on the central nervous system and on skin foci) in some dermatoses. Vrach.delo no.7:761 Jl '59. (MIRA 12:12)

1. Kafedra kozhnykh i venericheskikh bolezney (nachal'nik kafedry - prof. S.Ye. Gorbovitskiy) Voyenno-morskoy meditsinskoy akademii.
(X RAYS--PHYSIOLOGICAL EFFECT) (SKIN--DISEASES)
(NERVOUS SYSTEM)

IVANOV, N.A., prof.; GRUZDEV, V.F.; KHOVANOVA, V.A.

Experience in the use of aminazine in dermatological practice.
Sov.med. 24 no.3:120-123 Mr '60. (MIRA 14:3)

1. Iz Leningradskogo oblastnogo kozhno-venerologicheskogo dispansera
(glavnyy vrach L.D.Perevezentsev).
(SKIN—DISEASES) (CHLORPROMAZINE)

[illegible], [illegible], prof.; [illegible]
[illegible] (Zaporozh'ye); BAY[illegible], [illegible] [illegible]

Dermatological cases. Vest. derm. i ven. 38 no.10:85 O '64.
(MIRA 18:[illegible])

ACC NR: AP6030556 SOURCE CODE: UR/0413/66/000/016/0032/0032

INVENTOR: Karavanov, K. V.; Ivin, S. Z.; Gruzdev, V. G.

ORG: none

TITLE: Preparation of alkyl(aryl)tetrafluorophosphines or dialkyl trifluorophosphines Class 12, No. 184851

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 32

TOPIC TAGS: alkyl tetrafluro phosphine, dialkyl trifluorophosphine, aryl tetrafluorophosphine, diaryl trifluorophosphine, ORGANIC PHOSPHORUS COMPOUND, FLUORINE COMPOUND

ABSTRACT: To simplify the technology of the preparation of alkyl(aryl)tetrafluorophosphines or dialkyltrifluorophosphines by the reaction of organophosphorus compounds with SbF_3, alkyl(aryl)dichloro(fluoro)phosphine sulfides or dialkylchloro(fluoro)phosphine sulfides are used as the organophosphorus compounds and the process is carried out with heating to 50—120°C. [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 25May65/

Card 1/1 UDC: 547.412.13'241.07

GRUDEV, V.G.; [illegible]; [illegible], K.T.

Complex compounds formed by alkyl- and polyalkylchlorophosphines with aluminum chloride. Part 7: Reduction of complex compounds by metals and metal hydrides. Zhur. ob. khim. 35 no.6:1027-1029 Je '65. (MIRA 18:6)

L 7899-66 EWT(m)/EPF(c)/EWP(j)/EWP(t)/EWP(b) IJP(c) JD/RM

ACC NR: AP5024971 SOURCE CODE: UR/0286/65/000/016/0033/0033

AUTHORS: Gruzdev, V. G.; 44,55 Karavanov, K. V.; 44,55 Ivin, S. Z. 44,55

38

15B

ORG: none

TITLE: Method for obtaining alkyldichlorophosphonates. Class 12, No. 173764 44,55 [announced by Organization of State Committee for Chemical Industry SSSR (Organizatsiya gosudarstvennogo komiteta khimicheskoy promyshlennosti SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 33

TOPIC TAGS: alkyldichlorophosphonate, 21 potassium iodide, aluminum chloride, chlorinated organic compound, organic phosphorus compound

ABSTRACT: This Author Certificate presents a method for obtaining alkyldichlorophosphonates by treating complexes of alkyltetrachlorophosphonates and aluminum chloride with a reducing agent. To simplify the method, potassium iodide is used as a reducing agent at 100C.

SUB CODE: 07/ SUBM DATE: 15Jul64

nw

Card 1/1 UDC: 547.419.1.07

GRUZDEV, V.I., nauchnyy sotrudnik.

Preparing patients for the roentgenological examination of digestive organs. Med.sestra no.6:21-24 Je '53. (MLRA 6:6)

1. Rentgenodiagnosticheskoye otdeleniye nauchno-issledovatel'skogo instituta rentgenologii i radiologii imeni V.M. Molotova (Moscow).
(Diagnosis, Radioscopic)

GRUZDEV, V.I., kandidat meditsinskikh nauk.

On the problem of cholecystotomography. Vest.rent.i rad. no.1:40-45 Ja-F '54. (MLRA 7:4)

1. Iz rentgenodiagnosticheskogo otdeleniya (zaveduyushchiy - professor I.A.Shekhter) Gosudarstvennogo nauchno-issledovatel'skogo instituta rentgenologii i radiologii im. V.M.Molotova (direktor - professor P.D. Yal'tsev). (Gall bladder--Diseases) (Radiography)

GRUZDEV, V.I., kand. med. nauk

Disturbance in diaphragm function in the postoperative period and their influence on the development of postoperative pneumonia. Trudy TSentr. nauch.-issl. inst. rentg. i rad. 10:86-90 '59.
(MIRA 12:9)
(DIAPHRAGM--RADIOGRAPHY) (PNEUMONIA)

GRUZDEV, V.I., kand.med.nauk

Warning, danger! Zdorov'e 6 no.2:24 F '60. (MIRA 13:5)
(ALKALIES--PHYSIOLOGICAL EFFECT)

GRUZDEV, V.N., inzhener.

Structural defects in the DKV-6, 5-13 boiler; letter to the editor. Teploenergetika 3 no.1:61-62 Ja '56. (MLRA 9:2)

1. Kombinat "Intaugol'".
(Boilers)

GRUZDEV, V.N.

AUTHOR: Gruzdev, V.N., Engineer. 94-1-4/24

TITLE: Proposed Additions to Article 223 of the Boiler Inspection Rules (O dopolnenii stat'i 223 Pravil kotlonadzora) and reply by Fel'dblyum, B.I., Engineer.

PERIODICAL: Promyshlennaya Energetika, 1958, No.1, pp. 11 - 13 (USSR)

ABSTRACT: The present rules of the Boiler Inspection call for at least two safety-valves on every new boiler. Formulae are given for the section of the valves. For various reasons, the operating pressure of boilers may be increased or reduced, but the rules do not stipulate review of the section of the safety valves and associated equipment. A number of worked examples are given to show that this should be done. It is, therefore, recommended that Article 223 of the rules should be amended to include revision of the safety valves if the steam pressure is reduced because of wear or whenever the pressure is increased.

Reply

B.I. Fel'dblyum - Management of the Central Region Gosgortekhnadzora USSR (Upravleniye Tsentral'nogo okruga Gosgortekhnadzora SSSR): This is a note in reply to the comments by Gruzdev given above. Many industrial boilers have outputs of less than 2 t/h. If the pressure is reduced, even to half the original value, two safety-valves will suffice and are installed

Card1/2

94-1-4/24

Proposed Additions to Article 223 of the Boiler Inspection Rules and Reply by B.I. Fel'dblyum, Engineer.

in any case. Boilers designed for 13 atm. often operate at pressures below 7 atm., although they are in good condition. In this case, there is no need to instal further safety-valves because the existing ones will operate when the rated pressure is reached. In the other cases mentioned, small-lift safety-valves can be replaced by full-lift valves without changing the diameter. It is, however, necessary to instal additional valves when reconstructing boilers for higher outputs.

ASSOCIATION: Upravleniye Tsentral'nogo okruga Gosgortekhnadzora SSSR (Administration of the Central Region of the Gosgortekhnadzor USSR)

AVAILABLE: Library of Congress

Card 2/2

ACC NR: AP6036864 SOURCE CODE: UR/0147/66/000/004/0121/0128

AUTHOR: Gruzdev, V. N.; Talantov, A. V.

ORG: none

TITLE: Ramjet engine aircraft flight regimes ensuring constant conditions for flame stabilization

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 4, 1966, 121-128

TOPIC TAGS: air breathing engine, ramjet, flame stabilization, combustion

ABSTRACT: Flame stabilization in ramjet combustion chambers by means of bluff bodies depends to a large degree on the physical parameters of the inducted air, i.e., the pressure and temperature, which in turn depend on the flight speed and altitude. An analysis was made to determine what conditions (see Figs. 2 and 3), i.e., Mach number and altitude, the combustion remains stable for a given flameholder size. Based on

Card 1/2 UDC: 536.46:629.194.34

ACC NR: AP6036864

the relationship [illegible]

$$\boxed{\bar{d} = f(M, H)}$$

which upon derivation gives

$$\boxed{\frac{dM}{dH} = -\frac{\frac{\partial \bar{d}}{\partial H}}{\frac{\partial \bar{d}}{\partial M}}}$$

the following system of equations was derived for $\bar{d}$ and dM/dH. At altitudes $0 < H < 11{,}000$ m:

Card 2/7

ACC NR: AP6036864

$$\bar{d}=\frac{3,16\cdot 10^{8}}{\left\{(1-\beta H)^{\frac{n}{n-1}}\left(1+\frac{k-1}{2}M^{2}\right)^{\frac{k}{k-1}}[1-(M-1,5)\,0,178]\right\}^{1,118}}\times$$

$$\times\frac{3,16\cdot 10^{8}}{\left[T_{H=0}\,(1-\beta H)\left(1+\frac{k-1}{2}M^{2}\right)\right]^{1,178}},$$

$$\frac{dM}{dH}=$$

$$=\frac{\frac{2,296n-1,178}{n-1}\,\beta\left(1+\frac{k-1}{2}M^{2}\right)[1-(M-1,5)\,0,178]}{(1-\beta H)\left\{(2,296n-1,178)\,M\,[1-(M-1,5)\,0,178]-0,199\left(1+\frac{k-1}{2}M^{2}\right)\right\}},$$

and at altitudes 11,000 < H < 25,000:

Card 3/7

ACC NR: AP6036864

$$\bar{d} = \frac{3.16\cdot 10^{8}}{\left\{p_{H=11000}\, e^{-\frac{H-11\,000}{RT_{H=11\,000}}}\left(1+\frac{k-1}{2}M^2\right)^{\frac{k}{k-1}}\left[1-(M-1{,}5)\,0{,}178\right]\right\}^{1{,}118}} \times$$

$$\times \frac{1}{\left[T_{H=11\,000}\left(1+\frac{k-1}{2}M^2\right)\right]^{1{,}178}},$$

$$\frac{dM}{dH} = \frac{0{,}176\cdot 10^{-3}\left(1+\frac{k-1}{2}M^2\right)\left[1-(M-1{,}5)\,0{,}178\right]}{2{,}08\cdot M\left[1-(M-1{,}5)\,0{,}178\right]-0{,}199\left(1+\frac{k-1}{2}M^2\right)}$$

where T is temperature; M, mach number; H, altitude;

$$\beta = \frac{1}{\frac{n}{n-1}RT}$$

(n = 1.285, R = 287 j/cal°K for air); and $\bar{d}$ = d/do is the reduced diameter of the flameholder. Data calculated by the equations (points) and by a graphical method (curve) are plotted in the Fig. 1.

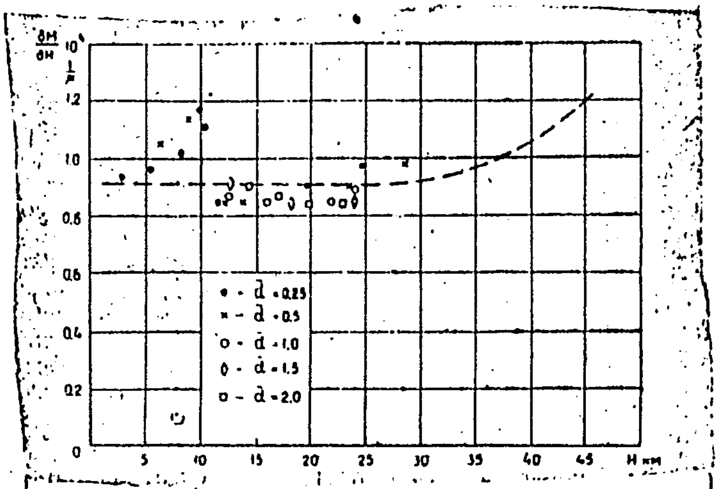

Fig. 1. Increment of velocity as a function of altitude (dM/dH).

ACC NR: AP6036864

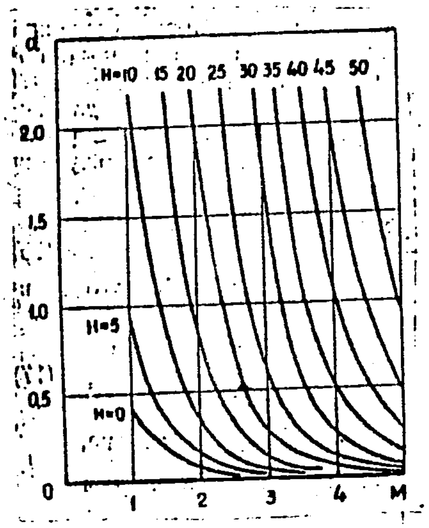

Fig. 2. The calculated dependence of the reduced flame holder diameter $\bar{d}$ on the Mach number M and altitude H.

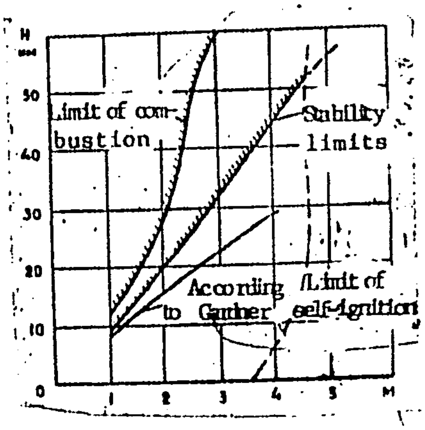

Fig. 3. Limits of ramjet operation in terms of Mach number and the altitude based on the conditions for combustion, flame stabilization, and self-ignition.

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ACC NR: AP6036864

The straight section of the curve in the figure indicates the minimum acceleration required to ensure stable combustion. The straight section of the curve indicates that in this region stable combustion does not depend on the flameholder size (see Fig. 2) nor on the altitude; the velocity increment amounts to about 0.09 M per 1000 m. At altitudes above 30 km, the conditions for stable combustion deteriorate and the minimum required velocity increment increases. Points located above the curve indicate reliable engine operation, and the region below the curve is unsuitable engine operation. Orig. art. has: 17 formulas and 6 graphs.

SUB CODE: 21/ SUBM DATE: 28Oct65/ ORIG REF: 007/ OTH REF: 003/
ATD PRESS: 5107

Card 7/7

GRUZDEV, V.N., inzh.

Once more about VGD boilers. Prom.energ. 14 no.3:62 Mr '59.
(MIRA 12:4)

1. Kombinat "Intaugol'."
(Boilers)

VYDRIN, V.N.; GROZDEV, V.S.

Endogenetic dispersion halos of zinc-lead deposits in the Yenisey Range. Geol. rud. mestorozh. 7 no.1:45-57 Ja-F '65. (MIRA 18:4)

1. Moskovskiy gosudarstvennyy universitet, kafedra poleznykh iskopayemykh, i Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya, Moskva.

GRUZDEV, V. V.

"Significance of Light in the Distribution of Insectivorous Birds in Forests and Forest Belts," Zool. Zhur., 31, No. 4, 1952.

[illegible]

"Ecology of the Hare of the Southeast European Part of the USSR."
Cand Biol Sci, Moscow State U, Moscow, 1953. (RZhBiol, No 1, Sep 54)

SO:Sum 432, 29 Mar 55

GRUZDEV, V.V.

Destruction of young tree plantings by Ellobius talpinus Pall. Zool.zhur. 32 no.3:375-379 My-Je '53. (MLRA 6:6)

1. Kafedra zoologii pozvonochnykh Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova. (Rodentia)

GRUZDEV,V.V.

Congregations and flocks of insectivorous birds in forests. Biul. MOIP. Otd.biol.60 no.4:67-72 Jl-Ag'55. (MLRA 8:12)
(BIRDS)

GRUZDEV, V.V.

Numbers and detrimental activities of some rodents in the agricultural zone of the U.S.S.R. during 1954-1955 Ja-F '57. (MIRA 10:6)
(RODENTIA)

GRUZDEV, V.V.

GRUZDEV, V.V.; SOLDATOVA, A.N.; BOCHAROVA, O.M.

Summer feeding of foxes (Vulpes L.) in the Yeruslan Valley sands [with summary in English]. Zool.zhur. 36 no.9:1424-1426 S '57. (MIRA 10:10)

1. Biologicheskaya laboratoriya i kafedra zoologii pozvonochnykh biologo-pochvennogo fakul'teta Moskovskogo gosudarstvennogo universiteta i Institut morfologii zhivotnykh AN SSSR.
(Yeruslan Valley--Foxes)
(Animals, Food habits of)

GRUZDEV, V.V.

Rate of damage done to trees by the common hare as related to the growing conditions of forest plantations. Nauch.dokl.vys. shkoly;biol.nauki no.3:32-34 '58. (MIRA 11:12)

1. Predstavlena biologicheskoy laboratoriyey Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.
(Hares) (Trees--Wounds and injuries)

GRUZDEV, V.V.

Conference on the division of the U.S.S.R. into regions based on natural history and economic geography. Zool. zhur. 37 no.11:1758 N '58. (MIRA 11:12)

(Zoology, Economic)

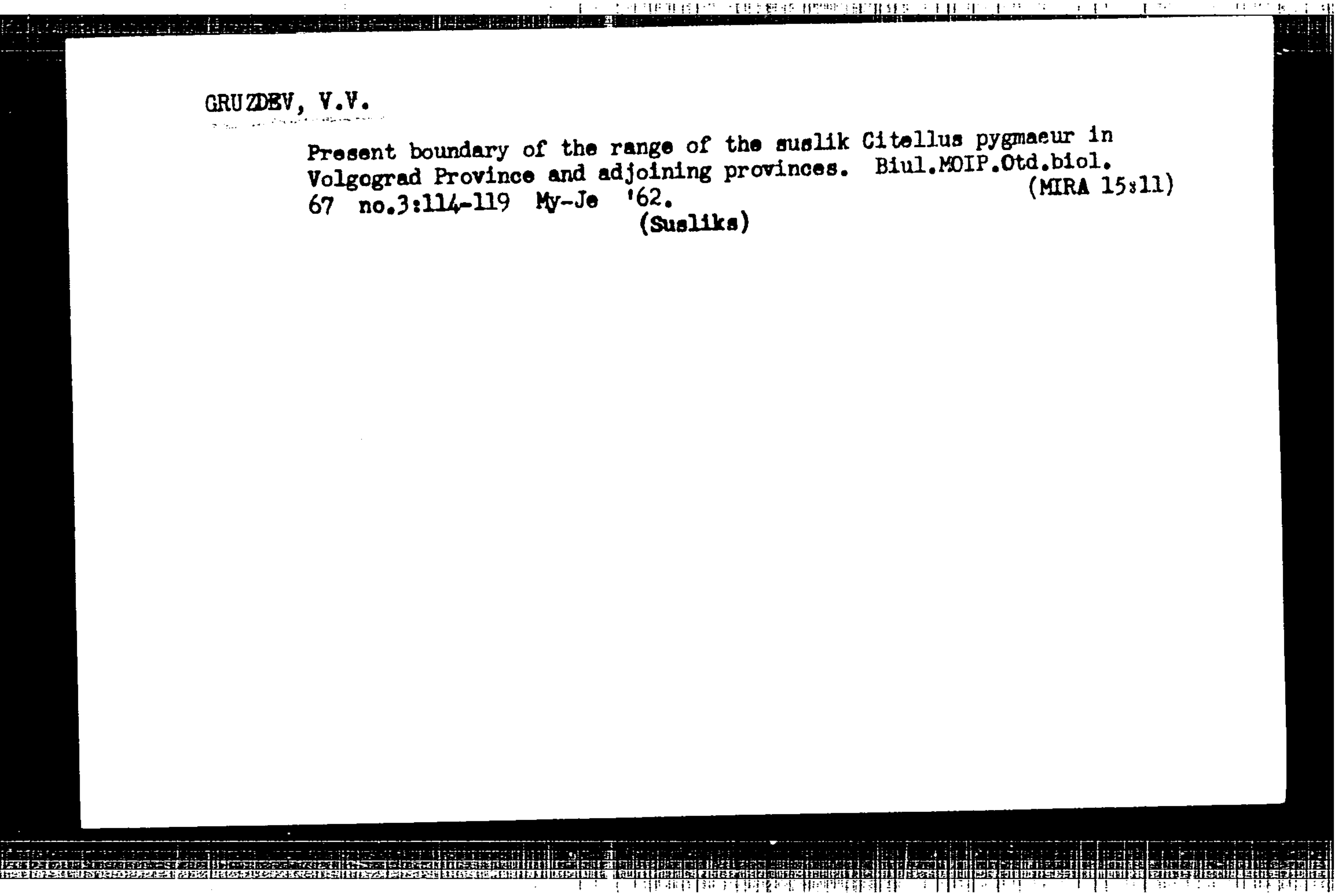
GRUZDEV, V.V.

Zones marked by extreme injuriousness of the brown rat in rural localities. Nauch.dokl.vys.shkoly; biol.nauki no.2:39-42 '59.
(MIRA 12:6)

1. Rekomendovana kafedroy zoologii pozvonochnykh Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(Rats)

BASHENINA, Natal'ya Viktorovna; GRUZDEV, Vasiliy Vladimirovich;
DUKEL'SKAYA, Natal'ya Markovna; SHILOV, Igor' Aleksandrovich;
POMALEN'KAYA, O.T., red.; LAZAREVA, L.V., tekhn. red.

[Rodent pests of orchards and gardens] Gryzuny - vrediteli sadov i ogorodov. By N.V.Bashenina i dr. zd.2., ispr. i dop. Moskva, Izd-vo Mosk. univ., 1961. 116 p. (MIRA 14-12)
(Rodent control) (Garden pests)
(Fruit culture—Diseases and pests)



GRUZDEV, V.V.

Present boundary of the range of the suslik Citellus pygmaeur in Volgograd Province and adjoining provinces. Biul.MOIP.Otd.biol. 67 no.3:114-119 My-Je '62. (MIRA 15:11)
(Susliks)

GRUZDEV, V. V.

Zones of damage caused by susliks in the European part of the U.S.S.R. and in western Kazakhstan. Nauch. dokl. vys. shkoly; biol. nauki no.3:39-44 '62. (MIRA 15:7)

1. Rekomendovana kafedroy zoologii pozvonochnykh Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova.

(SUSLIKS)

GRUZDEV, V.V., kand. biolog. nauk

Protection of orchards from hares. Zashch. rast. ot vred. i bol. 8 no.10:42-44 O '63. (MIRA 17:6)

1. Moskovskiy gosudarstvennyy universitet.

GRUZDEV, V.V.

Present range boundary of the lesser suslik between the Don and Donets River. Nauch. dokl. vys. shkoly; biol. nauki no.3: 35-39 '64 (MIRA 17:8)

1. Rekomendovana kafedroy zoologii pozvonochnykh Moskovskogo gosudarstvennogo universiteta.

GRUZDEV, V.V.

Winter and summer feeding habits of hare in the southern trans-Volga region. Zool. zhur. 43 no.7:1089-1093 '64.

(MIRA 17:12)

1. Biological-Pedological Faculty, Moscow State University.

GRUZDEV, V.V.

Bobacs. Priroda 53 no.5:112 '64. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.

AMIANTOV, I.N.; GRUZDEV, V.V.

Dispersion of the error of a discrete linear system with a random amplification coefficient. Radiotekh. i elektron. 10 no.9:1623-1627 S '65. (MIRA 18:9)

GRUZDEV, Ye.A.; ANOSOVA, I.G.; SERAFIMOV, L.A.; L'VOV, S.V.

Directed study of phase equilibrium curves for the technological flow sheet of the rectification of catalyzates of the Oxo synthesis. Khim. prom. 40 no.8:613-616 Ag '64. (MIRA 18:4)

TRUTNEV, V.I., inzh.; GRUZDEV, Yu.G., inzh.

Work of efficiency promotors in the Gorkiy Cold Storage Warehouse No.2. Khol.tekh. 40 no.2:53-54 Mr-Ap '63. (MIRA 16:4)

(Gorkiy--Cold starage warehouses--Technological innovations)

GRUZDEV, Yu S

SHTUL'MAN, M.A.; GRUZDEV, Yu.S., inzh.

Better utilization of radio communication. Avtom., telem. i sviaz' no.4:24 Ap '57. (MIRA 11:4)

1. Pomoshchnik uchastkovogo revisora po bezopasnosti dvizheniya poyezdov na Krasnoyarskom otdelenii (for Shtul'man). 2. 2-ye Krasnoyarskaya distantsiya signalizatsii i svyazi.
(Railroads--Electronic equipment)

GRUZDEV, Yu.S., inzh.

Our propositions for the improvement of radio communications. Avtom., telem. i sviaz' 3 no.3:35-36 Mr '59.
(MIRA 12:5)

1. Laboratoriya signalizatsii i svyazi Krasnoyarskoy dorogi.
(Railroads--Electronic equipment)

GRUZDEV, Yu.S., inzh.

Calling device for the checking of radio communications with intermediate stations. Avtom. telem. i sviaz' 3 no.5:25-26 My '59. (MIRA 12:8)

1. Laboratoriya signalizatsii i svyazi Krasnoyarskoy dorogi.
(Railroads--Communication systems--Testing)

SOV/137-58-7-14023

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 5 (USSR)

AUTHORS: Shpil'berg, B. A., Shelestov, M. S., Gruzdeva, A. K., Pravednykh, Ye. Z., Filichkin, I. Ye., Zhavoronok, V. I.

TITLE: Experiences in the Concentration of the Polymetallic Sulfide Ores of the Zyryanovskoye Deposit in Heavy Suspensions (Opyt obogashcheniya v tyazhelykh suspenziyakh sul'fidnoy polimetallicheskoy rudy Zyryanovskogo mestorozhdeniya)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 19-20, pp 34-39

ABSTRACT: Laboratory investigations have proved the possibility of concentrating the -30+4 mm class in suspensions, in which the tailings take 43.5% of the ore, with 0.04% Cu, 0.13% Pb, and 0.14% Zn. Losses in the tailings are: 4.9% Cu, 3.2% Pb, and 2% Zn. The concentration in the concentrate consisted of 0.57% Cu, 3.11% Pb, and 4.98% Zn. The Zyryanovsk Kombinat has built an experimental plant to handle 80-100 t/day. A description is offered of the I. L. Denisov mushroom valve for automatic maintenance of the level in the suspension feeder. The work of the plant has demonstrated the possibility of removing 45% of the ore in the tailings (of the original, or 61% of the

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Card 1/2

ASSEVA, K.M.; GRUZDEVA, A.K.; VASIL'YEVA, G.V.

Frothing agent for ore flotation. Gor. zhur. no.9:75
S '64. (MIRA 17:12)

GRUZDEVA, A.N.

15(0) 24(6) PHASE I BOOK EXPLOITATION SOV/1529

Leningrad. Elektrotekhnicheskiy institut

Nauchnaya literatura po dielektrikam i poluprovodnikam; bibliografiya 1953-1955 (Scientific Literature on Dielectrics and Semiconductors; a Bibliography of Literature Published from 1953 to 1955) Leningrad, Leningr. elektrotekhn. in-t im. V.I. Ul'yanova (Lenina), 1957. 146 p. 1,500 copies printed.

Resp. Ed.: G.F. Kholuyanov, Candidate of Technical Sciences; Compiler: A.N. Gruzdeva, Bibliographer.

PURPOSE: This bibliographical list is intended for instructors of vtuzes, scientists and engineers, and students taking advanced courses in dielectrics and semiconductors. Its aim is to acquaint the reader with the scientific periodical literature of the last few years.

COVERAGE: This booklet is a supplement to the bibliographical index "Scientific Works on Dielectrics" (1930-1950) and "Scientific Literature on Semiconductors" (1920-1952). It includes literature on dielectrics and semiconductors published in both the Soviet Union and abroad from 1953 through 1955. It was compiled

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under the direction of the Department of Dielectrics and Semiconductors, Leningrad Electrotechnical Institute (Professor N.P. Bogoroditskiy, Doctor of Technical Sciences, head of department). The list contains more than 2000 publications on dielectrics and semiconductors and their uses.

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AVAILABLE: Library of Congress (Z5838.S4L4)

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5-5-59

Card 5/5

GRUZDEVA, G.A. (Moskva)

Iontophoretic method for treating acute and chronic periodonititis in obstruction of dentinal tubuli and in teeth wich cannot be filled hermetically. Stomatologiia 36 no.1:19-20 Ja-F '57.
(MIRA 11:1)

1. Iz TSentral'noy stomatologicheskoy polikliniki
(ELECTRICITY IN DENTISTRY) (TEETH--DISEASES)

SMIRNOV, S.I.; GRUZDEVA, G.A.

Teeth with inflamed pulp treated by diathermocoagulation. Stomatologiia 36 no.4:20-21 Jl-Ag '57. (MIRA 10:11)

1. Iz TSentral'noy stomatologicheskoy polikliniki, Moskva.
(TEETH--DISEASES) (DIATHERMY)

GRUZDEVA, G.N., agronom; DANILOV, L.M., ekonomist

Reducing manual labor in corn seed production. Inform. biul. VDNKH no.8:19-20 Ag '63. (MIRA 17:8)

47
B

L 34113-66 EWT(1)/EWP(m) WW/DJ

ACC NR: AP6008833 SOURCE CODE: UR/0294/66/004/001/0092/0098

AUTHOR: Khabakhpasheva, Ye. M.; Gruzdeva, L. M.

ORG: Institute of Thermal Physics, Siberian Branch, Academy of Sciences SSSR (Institut teplofiziki Sibirskogo otdeleniya Akademii nauk SSSR)

21

TITLE: The influence of heat flux on the hydraulic resistance and heat exchange in the turbulent flow of dropping liquids in tubes

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 1, 1966, 92-98

TOPIC TAGS: heat flux, hydraulic resistance, heat exchange, turbulent flow, pipe flow, viscous fluid

ABSTRACT: This article investigates flow of a fluid in which, due to nonisothermality, only the viscosity changes, which is practically characteristic of many dropping liquids in states not close to the critical. A study is made of stabilized (in the thermal and hydrodynamic respect) steady-state turbulent fluid flow in a smooth tube. The calculation is performed according to the conventional "three-layer scheme" and is applicable to fluids with Prandtl numbers not too different from zero (Pr = 1:10). Viscosity variations with the temperature are considered only in the viscous sublayer. The heat conductivity coefficient is assumed constant, so that the fluid temperature in the viscous sublayer varies

Card 1/2 UDC 542:532.517.4:532.55:536.524

L 34113-66
ACC NR: AP6008833

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linearly. In the intermediate layer the viscosity of the fluid is considered constant. Satisfactory agreement is found between the theoretical results and experimental data. However, the results presented for the calculation of the comparative values of heat transfer coefficients under conditions of fluid cooling at $Pr = 5$ and $Re = 10^5$ deviate substantially from the experimental curves. Inasmuch as there is very little experimental information on heat exchange as well as on hydraulic resistance during the cooling of dropping liquids, it is difficult to precisely define the reason for the deviation of the theoretical data from the experimental. It is interesting to note that the theoretical values are higher than the experimental for the coefficients of hydraulic resistance and heat exchange during the cooling of heat transfer agents and that these values are in good agreement during heating according to B. S. Petukhov and V. N. Popov (Teplofizika vysokikh temperature, 1, No. 1, 1963) who investigated the flow of gases with variable physical properties. Orig. art. has: 6 figures and 20 formulas.

SUB CODE: 20 / SUBM DATE: 10Aug64 / ORIG REF: 012 / OTH REF: 006

Card 2/2 pla

GRUZDEVA, K.N.

Effect of glycine on liver glycogen content following the administration of medinal in normal mice and those with tumors. Biul.eksp.biol. i med. 42 no.12:40-42 D '56. (MIRA 10:2)

1. Iz kafedry biokhimii Omskogo meditsinskogo instituta (zav, - kafedroy dotsent A.S.Stepanenko)
    (GLYCINE, effects,
        on liver glycogen in normal & tumor bearing mice treated with barbital sodium (Rus))
    (LIVER, metabolism,
        glycogen, eff. of glycine in normal & tumor bearing mice treated with barbital sodium (Rus))
    (GLYCOGEN, metabolism,
        liver, eff. of glycine in normal & tumor-bearing mice treated with barbital sodium (Rus))
    (NEOPLASMS, experimental,
        eff. of glycine on liver glycogen in normal & tumor-bearing mice treated with barbital sodium (Rus))
    (BARBITURATES, effects,
        barbital sodium, on liver glycogen response to glycine in normal & tumor-bearing mice (Rsu))

GR[illegible]VA, L.N., dotsent

Dynamics of the content of glycogen in the liver of rabbits in the development process of Brown-Pearce carcinoma. Trudy OMI no.54:189-197 '64.

Qualitative characteristics of the liver glycogens in experimental cancer. Ibid.:207-214 (MIRA 18:9)

1. Iz kafedry biologicheskoy khimii (zav.- dotsent A.[illegible]. Stepanenko) Omskogo meditsinskogo instituta.

POPLAVKO, Mikhail Vasil'yevich; MANUYLOV, Nikolay Nikolayevich; GRUZDEVA, Larisa Alekseyevna; ZVEGINTSEVA, K.V., red.; GARMASH, L.M., otv. za vypusk; SUKHAREVA, R.A., tekhn.red.

[Welding of titanium] Svarka titana. Moskva, Mosk.dom nauchno-tekhn.propagandy im.F.E.Dzerzhinskogo, 1958. 37 p. (Peredovoi opyt proizvodstva. Ser."Tekhnologiia mashinostroeniia," no.29. Svarka, paika i metallizatsiia) (MIRA 13:1)
(Titanium--Welding)

GRUZDEVA, L. A.; MANUYLOV, N. N., and POPLAVKO, M. V.,

"Some Problesm in the Welding and Soldering of Commerical Titanium" Titan i yego splavy; metallurgiya i metallovedeniye (Titanium and Its Alloys; Metallurgy and Physical Metallurgy), Moscow, Izd-vo AN SSSR, 1958. p 180.

Ministry of the Aircraft Industry of the USSR

POPLAVKO, M.V.; MANUYLOV, N.N.; GRUZDEVA, L.A.

Welding and soldering processes of commercial titanium. Titan i ege splavy no. 1:194-204 '58. (MIRA 14:5)

1. Ministerstvo aviatsionnoy promyshlennosti SSSR.
(Titanium--Welding)

44015
S/860/61/000/000/010/020
A006/A101

/ 2310

2408

AUTHORS: Poplavko-Mikhaylov, M. V., Manuylov, N. N., Gruzdeva, L. A., Tyanin, A. V.

TITLE: A method of gas-shielded flash-welding of aluminum-beryllium alloy

SOURCE: Sbornik izobreteniy; svarochnaya tekhnika. Kom. po delam izobr. i otkrytiy, Moscow, Tsentr. byuro tekhn. inform. 1961, 131 - 132 (Authors' Certificate no. 121519, cl. 21h, 30_{12}, no. 611742 of November 14, 1958)

TEXT: The proposed method yields high-quality tight welds due to the flux which is composed of chloride and fluoride salts and their mixtures. Base metal, aluminum, or aluminum-alloy rods or wires are used as filler metal. The method can be used in manual automatic and semi-automatic welding with consumable or non-consumable electrode in argon or helium atmosphere. Prior to welding the edges of the metal to be welded are flux-covered on the reverse side.

Card 1/1

GRUZDEVA, L. A.

18(2) PHASE II - ABSTRACTS AB-1

Akademiya nauk SSSR. Institut metallurgii

Titan i yego splavy; metallurgiya i metallovedeniye (Titanium and Its Alloys; Metallurgy and Physical Metallurgy) Moscow, Izd-vo AN SSSR, 1958. 209 p. 4,000 copies printed.

Resp. Ed.: N.V. Ageyev, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: V.S. Rzheznikov; Tech. Ed.: A.A. Kiseleva.

INTRODUCTION: This book, of which a Phase I Exploitation (SOV/1200) has been prepared, is a collection of scientific papers devoted to the study of titanium and its alloys from three main points of view: physical metallurgy, forming, and welding. Special problems investigated include structural changes occurring during welding, determination of the content of harmful gases, development of industrial methods of rolling, and oxidation at various temperatures.

PART I. PHYSICAL METALLURGY

Card 1/43

grain growth is intensive and to decreasing the cooling rate in the $\beta \rightarrow \alpha$ transformation temperature range. There are 12 figures, 2 tables, and 2 references (both Soviet).

Poplavko, M.V., N.N. Manuylov, and L.A. Gruzdeva (Ministry of the Aircraft Industry of the USSR) Some Problems in the Welding and Soldering of Commercial Titanium 194

VT-1D commercial titanium, which has a one-phase (alpha) structure, was investigated for weldability. Tests were performed on sheet metal rolled from ingots that were produced in an arc furnace with a nonmelting tungsten electrode. Conclusions. (1) VT-1D titanium sheet metal, when its properties are stable and its plasticity sufficiently high, exhibits good weldability characteristics in the following types of welding: argon-shielded arc welding (manual and automatic), spot welding, seam welding, and butt welding. (2) In order to produce welded joints with good properties, it is necessary to remove, before welding, any scale present on the surface as well as the surface layer of metal itself, if it is contaminated with gases (oxygen, hydrogen, nitrogen). These layers can be successfully removed by pickling in an acid medium. Scale removal can be facilitated by preliminary sand blasting or by pickling with alkaline and acid reagents. (3) Ductile welded joints without cracks may be produced by arc welding only by protecting the joints both on the welding side and the reverse side with an atmosphere of inert gases of high purity (argon or helium). (4) Welded joints produced by argon-shielded arc welding of VT-1D titanium sheets of satisfactory ductility have the following mechanical properties: (a) the ultimate strength at room temperature and elevated temperatures is not lower than that of the parent metal (also true of seam-welded joints); (b) the angle of band of the seam metal is not less than that of the base metal, and often exceeds it; (c) the impact toughness of the weld metal and the transition zone are somewhat lower than that of the base metal (with a decrease in temperature the impact toughness drops); (d) the fatigue limit of welded joints under completely reversed bending stress (on the basis of 10×10^6 cycles) is 17 kg/mm^2, that is, not lower than that of welded joints of 30KhGSA steel, which has a tensile strength of 120 kg/mm^2. (5) Ordinary annealing does not produce any material effect on the mechanical properties of welded joints, but does decrease internal stresses. Vacuum annealing, however, does affect these properties, and in addition frees the metal of hydrogen. This type of annealing considerably increases the ductility of the weld metal. (6) VT-1D titanium shows little tendency to form cracks at high temperatures. Such a tendency at room temperature and below depends on the ductility of the original metal. Sheets of high ductility do not form such cracks. (7) VT-1D titanium can be soldered with pure silver in a furnace with an atmosphere of pure helium (in special chambers) or by heating in an electrical resistance machine. There are 5 tables, 1 figure, and 6 references (all English).

Gurevich, S.M. (Institute of Electric Welding, Ukrainian Academy of Sciences) The Effect of Aluminum on the Structure and Properties of Titanium Welded Joints 205

An investigation was made of the effect of the various amounts of aluminum (from 1 percent to 7 percent) on the structure and mechanical properties of welded titanium joints produced by means of a melting electrode. The base metal consists of plates of Mg-reduced titanium 3 mm. in thickness. The weld metal was alloyed with aluminum in amounts of 1, 3, 5, and 7 percent by making automatic butt welds with the use of aluminum wires of various diameters. For purposes of comparison, similar welds were made without aluminum. Conclusions. (1) Alloying of titanium welded joints with

GLAZUNOV, S.G.,

PHASE I BOOK EXPLOITATION SOV/4503

Akademiya nauk SSSR. Institut metallurgii

Titan i yego splavy, vyp. 3: Metallovedeniye titana (Titanium and Its Alloys, No. 3: Metal Science of Titanium) Moscow, Izd-vo AN SSSR, 1960. 161 p. Errata slip inserted. 2,700 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A.A. Baykova.

Resp. Ed.: N.V. Ageyev, Corresponding Member, Academy of Sciences USSR, Ed. of Publishing House: M.L. Podgoyetskiy; Tech. Ed.: Ye. V. Makuni.

PURPOSE: This collection of articles is intended for scientific research workers and metallurgical engineers.

COVERAGE: The articles summarize results of experimental studies of titanium-base alloys. The microstructure and mechanical properties of titanium-base alloys containing aluminum, chromium or other metals are analyzed along with the effect of oxygen, hydrogen and heat treatment on alloy structure and properties. The tendency of titanium alloys to embrittlement as a result of strain aging is emphasized, and the nitriding of titanium, carried out to increase the surface strength and wear resistance of titanium alloys, is described. Transformations occuring in commercial titanium under conditions of electric heating are examined. Attempts to develop titanium-base alloys capable of withstanding temperatures over 400°C are discussed as are problems of titanium-powder metallurgy and weldability of certain titanium-base alloys. No personalities are mentioned. Most of the articles have bibliographic references, the majority of which are Soviet.

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Shorshorov, M.Kh., and G.V. Nazarov. Weldability of the VT1 Titanium and of the VT5 Alloy 135

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Polyakov, D.A. Argon-Arc Welding of Titanium Products 147

Aksenov, G.I., V.G. Khromov, A.N. Nikolayev, and Yu.N. Semenov. Roll-Pressing Titanium Powder Into a Thin Band by Using the Method of the Gor'kiy Polytechnical Institute 152

Kanyshkov, A.S. Result of Using Titanium in a Plant 159

KHOREV, A.I.; MOISEYEV, V.N.; GRUZDEVA, L.A.; MOROZOV, L.N.

Effect of oxygen on the properties and heat treatment of the BT14 titanium alloy. TSvet. met. 36 no.11:69-74 N '63. (MIRA 17:1)

L 34533-65 EPA(s)-2/EWP(k)/EWA(c)/EWT(m)/EWP(b)/T/EWP(v)/EWP(t) Pf-4 IJP(c)

ACCESSION NR: AP5000060 JD/HM S/0286/64/000/021/0068/0068 26
B

AUTHOR: Glazunov, S. G.; Gruzdeva, L. A.; Moiseyev, V. N.; Poplavko-Mikhaylov, M. V.; Khorev, A. I.; Mikhaylov, B. M.

TITLE: Filler material for welding titanium alloys with a high content of β-phase. Class 49, No. 166221 14 18 27

SOURCE: Byul. izobr. i tovar. znakov, no. 21, 1964, 68

TOPIC TAGS: titanium, titanium alloy, beta titanium alloy, welding, filler wire, electrode wire

ABSTRACT: This Author Certificate introduces a titanium-base filler alloy for welding titanium alloys with a high content of β-phase. To make the filler suitable for any such titanium alloys and to improve the ductility of the weld metal, the filler alloy contains 1—3% Al and 8—10% Mo.

ASSOCIATION: none

SUBMITTED: 16Oct61 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3148

Card 1/1

L 55955-65 EWT(d)/EWP(w)/EWT(m)/EPA(s)-2/EWP(v)/EWA(d)/T/EWP(t)/EWP(b)/EWP(k)/EWP(z)/EWA(c)/EWA(h) Pf-4/Peb IJP(c) MJW/JD/HM/AW/EM

ACCESSION NR: AP5014206

UR/0122/65/000/005/0028/0030
621.642:546.821

42
B

AUTHOR: Khorev, A. I. (Engineer); Gruzdeva, L. A. (Engineer); Manuylov, N. N. (Engineer); Loskutov, V. M. (Engineer); Vikhrov, G. S.

TITLE: High-strength welded cylindrical shells of VT14 alloy

SOURCE: Vestnik mashinostroyeniya, no. 5, 1965, 28-30

TOPIC TAGS: VT14 alloy, titanium alloy, titanium alloy welding, titanium alloy heat treatment, titanium alloy property

ABSTRACT: The effect of heat treatment on the mechanical properties of welded joints in VT14 alloy sheets (4% Al, 3% Mo, 1% V, bal. Ti) has been studied. Test plates 2.5 mm thick were milled to a thickness of 1.5 mm, except for a narrow strip along the edges to be welded. The plates were welded, annealed at 870C for 15 min, aged for 16 hr either at 480 or 520C, and then h-f annealed at 750C or 850C for 5 min. Tensile and bend tests showed that welded joints in the as-aged condition (without h-f annealing) failed at a strength of 94.9—120.4 kg/mm^2 in either the weld (in a brittle manner) or the base metal. H-F annealed specimens always failed in the base metal at a strength of 107—125 kg/mm^2. The bend duc-

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L 55955-65

ACCESSION NR: AP5014206

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tility of h-f annealed specimens was almost twice as high as that of as-aged specimens. The experience gained in these experiments was used in fabrication of shells 197 mm in diameter from sheet 2 or 2.5 mm thick. The sheets were rolled, welded, annealed at 850C for 15 min, and machined to 1.15 or 1.5 mm thickness (except for the weld and weld-adjoining area). Then the shells were aged at 480, 500, or 520C for 16 hr after which the weld and weld-adjoining zones were h-f annealed at 750C for 5 min. Shells aged at 480C had the highest burst strength, 138.5—154 kg/mm^2, compared to 130—141 kg/mm^2 for shells aged at 500 or 520C. However, all the shells failed in a ductile manner in the base metal far off the weld. Orig. art. has: 3 figures and 2 tables. [AZ]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4035

Card 2/2

L 54742-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/
EWA(c) Pf-4 IJP(c) MJW/JD/HM/HW/EM

ACCESSION NR: AP5015801

UR/0129/65/000/006/0036/0037
669.295:621.791.053:620.17
39
38
B

AUTHOR: Gruzdeva, L. A.; Khorev, A. I.

TITLE: Structure and properties of high-strength titanium-alloy welds

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 6, 1965, 36-37

TOPIC TAGS: welding, titanium alloy, titanium alloy welding, TIG welding, titanium alloy weld, weld planishing/VT14 alloy, VT15 alloy

27

ABSTRACT: The effect of hot rolling on the structure and properties of titanium-alloy welds has been investigated. Sheets 1.2, 2.1, and 3 mm thick of VT14 and VT15 titanium alloys were TIG welded and then hot rolled with 30% or 60% reduction, followed by heat treatment under various conditions. It was found that for VT14 welds, best results are achieved by hot rolling with 50% reduction followed by annealing at 870C, water quenching, and aging at 520C for 16 hr; welds attain a strength of 135 kg/mm² and satisfactory ductility (25° bend angle). For VT15 welds, the best combination of the strength with ductility is achieved by hot rolling with 60% reduction followed by annealing at 680C, water quenching, and aging at 480C for 15 hr and at 560C for 15 min; welds attain a strength of 140 kg/mm² and have a

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ACCESSION NR: AP5015801

6 /

satisfactory ductility (15° bend angle). Specimens treated in this way fail outside the weld or heat affected zone. VT14 weld metal rolled with 60% reduction has a structure identical to that of the base metal. VT15 weld metal rolled with 60% reduction had a structure fairly similar to that of the base metal. Mechanical properties of welds of both alloys hot rolled with 30—60% reduction are close to that of the base metal. Orig. art. has: 1 figure. [ND]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4030

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Card 2/2

L 6911-66 EWT(m)/EWP(k)/EWA(c)/T/EWP(b)/EWP(v)/EWP(t) IJP(c) JD/HM

ACCESSION NR: AP5000060 S/0286/64/000/021/0068/0068

45
B

AUTHOR: Glasunov, S. G.; Gruzdeva, L. A.; Moiseyev, V. N.; Poplavko-Mikhaylov, M. V.; Khorev, A. I.; Mikhaylov, B. N.

55,44 55,44 55,44 55,44 55,44 55,44

TITLE: Filler material for welding titanium alloys with a high content of β-phase. Class 49, No. 166221

55,1 4455,21

SOURCE: Byul. izobr. i tovar. znakov, no. 21, 1964, 68

TOPIC TAGS: titanium, titanium alloy, beta titanium alloy, welding, filler wire, electrode wire

ABSTRACT: This Author Certificate introduces a titanium-base filler alloy for welding titanium alloys with a high content of β-phase. To make the filler suitable for any such titanium alloys and to improve the ductility of the weld metal, the filler alloy contains 1—3% Al and 8—10% Mo.

ASSOCIATION: none

SUBMITTED: 16Oct61 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3148

Card 1/1

L 9651-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) IJP(c) NJ/JD

ACC NR: AP5027604 SOURCE CODE: UR/0135/65/000/011/0027/0029

44,55 43

AUTHOR: Borisova, Ye. A. (Candidate of technical sciences); Shashenkova, I. I. (Engineer); Gruzdeva, L. A. (Engineer)

44,55 44,55 B

ORG: none

TITLE: Resistance of welded joints of VT14 titanium alloy to cracking under prolonged load

18 44,55,27

SOURCE: Svarochnoye proizvodstvo, no. 11, 1965, 27-29

TOPIC TAGS: crack formation, titanium alloy, static load test, annealing / VT14 titanium alloy

14

ABSTRACT: The use of titanium alloys to manufacture products performing under high pressure raises the question of their long-time reliability. So far, the pertinent conditions have been simulated in the laboratory by subjecting specimens to an uniaxially stressed state, whereas under real conditions the alloys exist in a complex-stressed state. To remedy this gap, the proneness of titanium alloys to eventual fracture was investigated by means of a specially developed method simulating the plane stressed state. The method consists in determining the time (in days) until the appearance of cracks in welded washers subjected to a constant load in a special device (Fig. 1). The welded washers investigated were made of VT14 titanium alloy

Card 1/3 UDC: 621.791.011:669.295.5

L 9651-66

ACC NR: AP5027604

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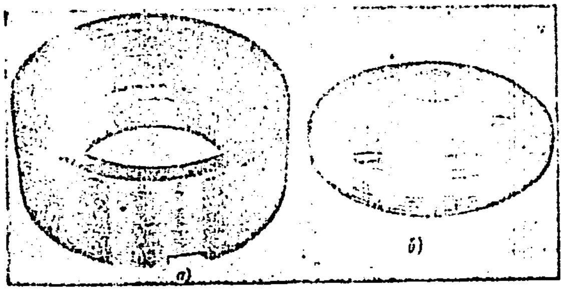

Fig. 1. Device for long-time loading of washers:

a - housing; b - lid. The loading of the specimen (washer) is produced by the projecting edge of the lid as it is screwed into the housing

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ACC NR: AP5027604

(3.88% Al, 3.02% Mo, 1.02% V, 0,015% H_2, 0.08% O_2, 0.02% N_2). The effect of annealing on cracking under prolonged load was also investigated by first heating some of the washers in an air-atmosphere furnace at 800°C for 15 min and cooling them in air. The loaded specimens periodically examined under a microscope with a magnification of 16-56 times in order to detect any cracks. Findings: no cracks were observed during the first 180 days of loading in the annealed and non-annealed specimens subjected to a load equal to 25% of the breaking load (P = 450 and 725 kg, respectively, for annealed and non-annealed specimens). When the load was raised to 50% of the breaking load, however, a large number of cracks appeared along grain boundaries in the unannealed specimens. Thus, annealing has a beneficial effect on the welded joints of VT14 titanium alloy exposed to prolonged loading. It is also established that the gas-saturated layer forming on the surface of specimens of VT14 alloy during their heating at aging temperatures leads to the premature cracking of the welded joint under prolonged loading. Hence, the author recommends eliminating this gas-contaminated layer by sandblasting with subsequent pickling or by other methods.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 000

Card 3/3

KHOREV, A.I., inzh.; GRUZDEVA, L.A., inzh.; MANUYLOV, N.N., inzh.;
LOSKUTOV, V.M., inzh.; VIKHROV, G.S.

High-strength welded cylindrical shells made of BT14 alloy.
Vest. mashinostr. 45 no.5:28-30 My '65. (MIRA 18:6)

L 33553-66 EWT(m)/EWP(k)/T/EWP(w)/EWP(v)/EWP(t)/ETI IJP(c) JH/JD/HM/JG/GD

ACC NR: AT6012400

SOURCE CODE: UR/0000/65/000/000/0258/0262

5 2
5 4

AUTHORS: Gruzdeva, L. A.; Folomeyeva, M. A.

ORG: none

TITLE: Investigation of alloy VT15 welded joints

B+1

SOURCE: Soveshchaniye po metallokhimii, metallovedeniyu i primeneniyu titana i yego splavov, 6th. Novyye issledovaniya titanovykh splavov (New research on titanium alloys); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1965, 258-262

TOPIC TAGS: DURABILITY, PLASTICITY, WELD EVALUATION, metal welding, seam welding, titanium alloy, metal property / VT15 titanium alloy

ABSTRACT: The strength and plasticity of alloy VT15 welded joints were investigated. Immediately after welding the welded joints of sheets of up to 4 mm thickness could be bent through 180° and had a strength of 85--90 kg/mm^2. Quenching from 800C (to increase strength) resulted in loss of plasticity by a factor of 2 and aging also had detrimental effects on plasticity. To find ways of increasing strength without affecting plasticity, four approaches were attempted: 1) welding of plated sheets (plated with titanium) to protect the metal from oxidation had some effect on the microstructure of the weld but did not solve the plasticity problem; 2) using titanium alloys with Al(3--3.5%), Mo (10--20%) and Re (0--0.2%) as additives did not improve the plastic properties of the welds; 3) high-temperature water quenching (from 900--1200C)

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L 38553-66

ACC NR: AT6012400

3

after heating in argon improved strength (to 130--150 kg/mm^2) but resulted in low plasticity after aging; 4) plastic deformation (50%) of the welded seam at a temperature of 650C followed by quenching in water from 800C and aging (500C for 10 hrs, 560C for 15 min) gave best results, increasing strength to 140--150 kg/mm^2 with plasticity of 100--125° (bending before failure). Photographs of seam microstructures for the various welding conditions are presented. Engineers V. M. Loskutov and B. M. Mikhaylov participated in some of the work. Orig. art. has: 3 figures.

SUB CODE: 13/ SUBM DATE: 02Dec65/ ORIG REF: 001

Card 2/2

L 38554-66 EWT(m)/EWP(k)/T/EWP(e)/EWP(w)/EWP(v)/EWP(t)/ETI IJP(c) JD/HM/JG/

ACC NR: AT6012401 GD

SOURCE CODE: UR/0000/65/000/000/0263/0268

AUTHORS: Borisova, Ye. A.; Gruzdeva, L. A.; Folomeyeva, M. A.; Shashenkova, I. I.

ORG: none

TITLE: Effects of small amounts of boron, beryllium and lanthanum on the properties of welded seams of titanium alloys

(60 B+)

SOURCE: Soveshchaniye po metallokhimii, metallovedeniyu i primeneniyu titana i yego splavov, 6th. Novyye issledovaniya titanovykh splavov (New research on titanium alloys); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1965, 263-268

TOPIC TAGS: titanium alloy, metal welding, metal property, boron containing alloy, beryllium containing alloy, lanthanum containing alloy / VT-1 titanium alloy, OT4 titanium alloy, VT5 titanium alloy, VTZ-1 titanium alloy, SEAM WELDING, DURABILITY, PLASTICITY

ABSTRACT: The effects of small amounts of boron, beryllium and lanthanum on the mechanical properties and structure of titanium alloy welded seams were experimentally investigated on alloys VT1-1, OT4, and VT5. Butt-welded (argon-arc) 2-mm thick specimens were tested over a temperature range of 20--500C, and curves of tensile strength and bending angle (to test for plasticity) at failure are presented for different additives over this temperature range. Photographs of the welding seam microstructures for different amounts of the additives are also shown. It was found that: addition of up to 0.04% Be, 0.12% B, and 0.10% La had no effect on the mechanical

Card 1/2

Card 2/2 HD

L 46770-66 EWT(m)/EWP(k)/T/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6031730 SOURCE CODE: UR/0136/66/000/009/0092/0093

AUTHOR: Khorev, A. I.; Glazunov, S. G.; Gruzdeva, L. A.

44 B

ORG: none

18

TITLE: Effect of low-temperature thermomechanical treatment on the structure and properties of titanium alloys

21

SOURCE: Tsvetnyye metally, no. 9, 1966, 92-93

TOPIC TAGS: titanium alloy, alloy, thermomechanical treatment, low temperature thermomechanical treatment, alloy structure, ~~alloy~~ solid mechanical property/VT14 alloy, VT15 alloy

18 18 18

ABSTRACT: VT14 and VT15 titanium alloy sheets 1.5 and 2.0 mm thick were solution annealed at 680—880C, quenched, and cold rolled to a thickness of 1.2 mm with a reduction of 20 and 40%, respectively. All sheets were then aged at 420—560C. The dependence of the mechanical properties on low-temperature thermomechanical treatment (LTMO) of VT14 and VT15 alloys is shown in Fig. 1. The total strengthening 18 of VT14 alloy was the combined result of strain hardening and phase transformation. Straining VT14 alloy prior to aging also decreased the alloy grain size. A 20% reduction before aging did not change the VT15 alloy grain shape, but 40% reduction almost obliterated the grain boundaries. By applying LTMO, high-strength sheets, wire or cold-drawn and cold-rolled tubes, 18 as well as finished articles can readily

Card 1/2 UDC: 669.293:620.1

SUB CODE: 13/ SUBM DATE: none/ ATD PRESS: 5091

Card 2/2 hs

ACC NR: AP7003006 (A,N) SOURCE CODE: UR/0413/66/000/024/0154/0154

INVENTOR: Poplavko-Mikhaylov, M.V.; Khorev, A.I.; Glazunov, S.G.; Gruzdeva, L.A.; Moiseyev, V.N.

ORG: none

TITLE: Titanium-base filler material for welding martensite-type heat-treatable titanium alloys. Class 21, No. 152372

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 154

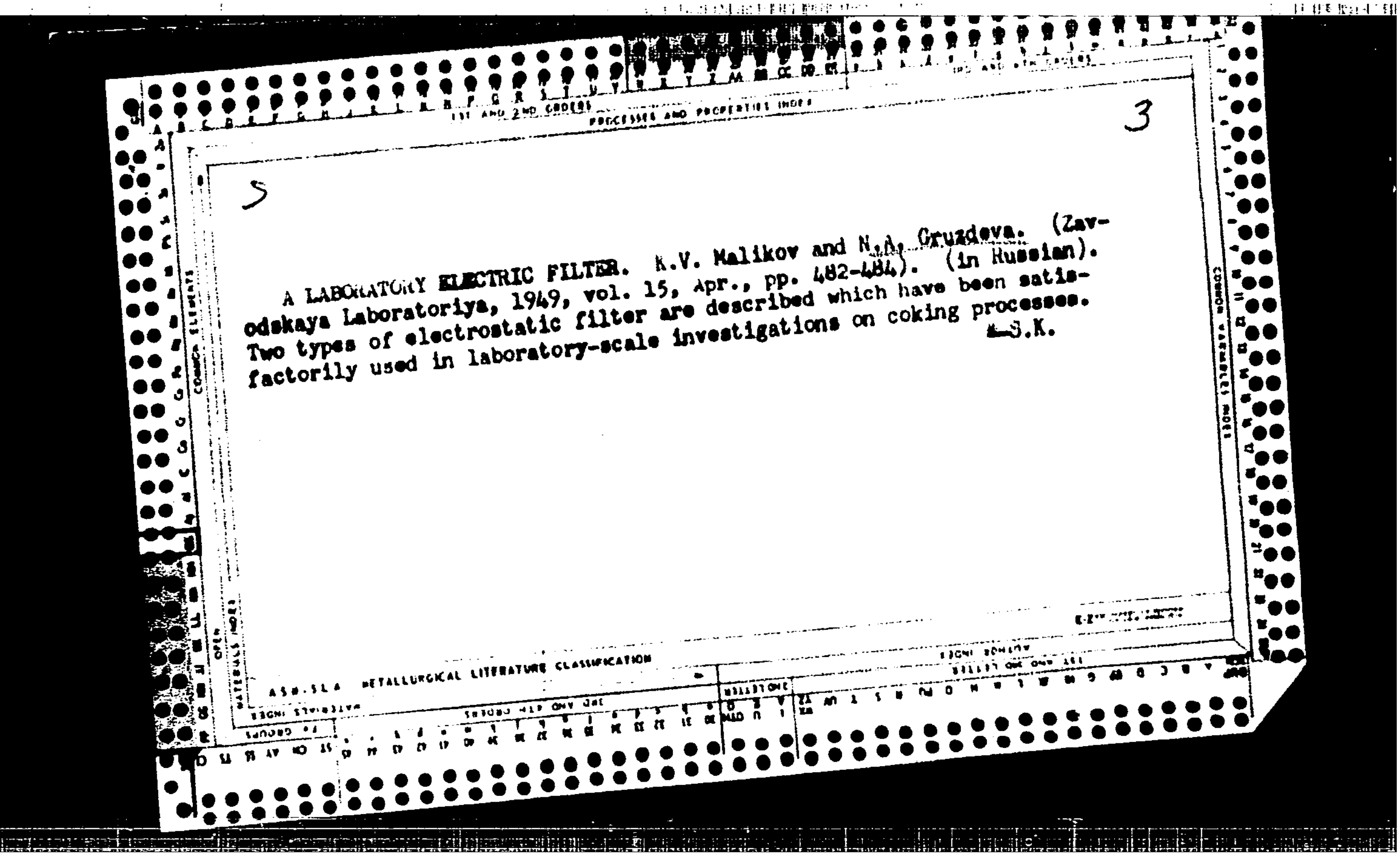
TOPIC TAGS: titanium alloy, ~~heat treatable alloy,~~ alloy welding, filler ~~material~~ , titanium base alloy, martensite, weld heat treatment

ABSTRACT:

This Author Certificate introduces a titanium-base filler metal for welding martensite-type heat-treatable titanium alloys. To increase the weld metal strength and ductility in the heat-treated condition, 2—[illegible].5% Al is introduced into the filler metal. [MS]

SUB CODE: 11, 13/ SUBM DATE: 16Oct61/ ATD PRESS: 5114

Card 1/1 UDC: none


1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
COMMON ELEMENTS
OPEN
MATERIALS INDEX
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

3

5

A LABORATORY ELECTRIC FILTER. K.V. Malikov and N.A. Gruzdeva. (Zavodskaya Laboratoriya, 1949, vol. 15, Apr., pp. 482-484). (in Russian). Two types of electrostatic filter are described which have been satisfactorily used in laboratory-scale investigations on coking processes. S.K.

7

CA

Preparation of colloidal palladium for determining hydrogen in gases. N. A. Gruzdeva. *Zavodskaya Lab.* 15, 1247-8(1949).—Add 500 g. fresh egg white to 550 ml. 3% NaOH with stirring, heat 2 hrs. to 60-5°, filter, add AcOH until acid, filter, wash the ppt. with a little H_2O, stir into a paste with H_2O, dialyze in cellophane against H_2O for 2 days, neutralize with 10% NaOH until clear, again dialyze until neutral, and concn. to small vol. at 50-60°. Dry in a vacuum desiccator over $CaCl_2$. The resulting Na protalbinate is a very stable protective colloid. To 4 g. of the colloid in 70-80 ml. H_2O add a 10% excess of 10% NaOH and slowly add 4 g. $PdCl_2 \cdot 2H_2O$, 80-90 ml. of 0.15 *N* HCl with stirring, and reduce the red soln. with $NH_2.NH_2$ added in 25% excess; after 3 hrs. dialyze the Pd colloid until free of Cl^-, evap. at 60-5°, and finally dry in a vacuum over $CaCl_2$. In this way black friable particles are obtained which are readily peptizable in water. To 6 g. of the prepn. in 100-50 ml. H_2O add 7 g. picric acid in 30-40 ml. H_2O, neutralize with 34 ml. of *N* NaOH, and use the soln. in conventional gas absorption bulbs for H uptake; complete removal from gas mixts. takes place in 10-30 min. G. M. K.

Analysis

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Automatic Absorbing Vessel for Gas Analysis. N. A. Gruzdeva and A. A. Krivoumov. (*Zavodskaya Laboratoriya*, 1950, No. 1, 113–114). [In Russian]. In the apparatus for gas analysis described, the rapid absorption of gases by liquids is achieved by rapid circulation with a solenoid pump and pulverization. The method has been successfully used for the determination of hydrogen in coke-oven gas and is also suitable for the determination of carbon monoxide. S. K.

[illegible] 161T65

GRUZDEVA, N. A.

USSR/Engineering - Boilers,
Scale Removal

Jun 50

"Anthracene Oil Bases as Inhibitors for Chemical Removal of Scale From Boilers," N. A. Gruzdeva, Eastern Sci Res Coal Chem Inst, 2½ pp

"Prom Energet" No 6

Describes preparation and properties of subject bases. They hinder action of acids on metals. Hence they are useful in chemical boiler cleaning, since they protect steel without interfering with scale removal. They are made by the Nizhne-Tagil Coke-Chem Plant.

161T65

GRUZDEVA, N. V.

High-duty refractories from technical alumina. A. K. KARKLIT and N. V. GRUZDEVA. Ogneupory, 15 (11) 504-10 (1950).--Shapes weighing up to 4 kg., having 97 to 98% Al_2O_3, and being suitable for service at 1700° to 1850°C. were made from technical alumina analyzing $Al_2O_3 + TiO_2$ 99.00 (of which TiO_2 was not over 0.05%), SiO_2 0.13, Fe_2O_3 0.18, CaO 0.13, and MgO 0.11% and having a grain size of 0.075 to 0.060 mm. 57.2% and <0.060 mm. 42.8%. (1) Shapes with sintered bodies. Alumina was calcined at 1550° to 1650° for 4 hr., wet-ground with 0.1 N HCl for 48 hr, washed free of acid, plasticized with 5% molten paraffin, shaped under 1000 kg./cm.², and fired at 1710° to 1730° for 5 to 6 hr. The total shrinkage was 17.9%, water absorption 0.00%, bulk density 3.64, apparent porosity 0.00%, specific gravity 3.86, and highest test temperature 1770° and corresponding compression 0.0%. The specific gravity did not change during reheat. The average crushing strength was 6725 kg./cm.², and the highest was 10,500 kg./cm.². Cracks appeared after 2 to 3 heat-shock cycles (heating to 850° and cooling in water), and complete destruction occurred after 6 to 8 cycles. Scrap of these shapes and also electrofused corrundum were added to raise the thermal stability and reduce firing shrinkage. An addition of 10 to 15% of ordinary adulterated corundum of 0.5 to 1.0 mm. resulted in apparent porosity of 13 to 25%, crushing strength of 2000 to 4500 kg./cm.², initial deformation at 1620° to 1660°, and thermal stability of 13 to 18 cycles. The addition of 30% of fine electro-corundum (grain number 325), followed by firing at 1700°, resulted in $Al_2O_3 + TiO_2$ 97.00%, total shrinkage 13%, water absorption 0.1%, bulk density 3.37, crushing strength 4040 kg./cm.², initial softening at 1700° under load of 2 kg./cm.², highest test temperature 1750° and corresponding compression 1.6%, and destruction after 9 cycles. (2) Shapes with porous bodies. Alumina was ground to pass through sieve of 10,000 openings per cm.², made into briquettes, fired at 1250° to 1700°,

(over)

GRUZDEVA, N. A.

USSR/Fuel - Coal Coke Mar 50

"Laboratory Method for Determination of Yields and Quality of Coke By-Products," V. N. Novikov, N. A. Gruzdeva, Eastern Sci Res Coal-Chem Inst, 8 pp

"Zavod Lab" Vol XVI, No 3

Develops methods which show good results in comparison with production data. Special retort for coal coking has been designed, in which pyrolysis chamber is directly connected with coking chamber. Method offers possibility of classifying coals as to yields and quality of chemical products obtained by any coking method now used.

PA 159T32

GRUZDEVA, N. A.

232T41

USSR/Chemistry - Aromatic Hydrocarbons Sep 52

"A Thermodynamic Analysis of the Formation of Aromatic Hydrocarbons During Coal Pyrolysis," N. A. Gruzdeva, Eastern Sci Res Coal Chem Inst

"Zhur Prik Khim" Vol 25, No 9, pp 980-993

Author believes that current ideas regarding the formation of volatile substances during coking, especially the formation of aromatic hydrocarbons, do not have sufficiently strong ground to stand on. Assumes that aromatic

232T41

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hydrocarbons are derived from the pyrogenic conversion of all the products of the original tar, i.e., of the phenols and the aliphatic, naphthenic and unsatd hydrocarbons, as well as of the aromatic part of the inert oil. On the basis of this assumption and utilizing the calcd values of free energy and theoretical analysis of the reactions underlying the formations of those compds most characteristic of coal pyrolysis, she establishes the relation between her theoretical computations and the exptl data. In most cases, the exptl data confirm the accuracy of her theoretical conclusions.

232T41

Gruzdeva, N.A.

2

The determination of the true and the apparent densities and the porosity of coke. N. A. Gruzdeva and O. P. Kozlevnikova. *Koks i Khim.* 1957, No. 10, 31-5; cf. ASTM Standard D167-24.—The method in present use for the detn. of the porosity of coke, GOST 5340-50, has been shown by the authors to fall short of accounting for the true vol. of the closed pores by 12 to 20%. The more accurate method proposed is based on its computation from the values of apparent and true ds, d_a and d_t viz., $P = 100 - 100d_a/d_t\%$. To det. d_t, after the selection of 20 lumps for the detn. of d_a, divide the gross sample reserved for the complete tech. analysis, according to GOST 2360-51. From the analytical portion select a 25-g. sample and dry it at 180 to 200° for 15 min. Transfer 10 g. to a pyknometer of 25-50-cc. capacity and weigh. Fill the vessel to half its vol. with benzene of known d., place it on the water bath, and heat it to the b.p. of the benzene to wet the coke completely and to expel the air from the pores. Cool the pyknometer under the water tap, then fill it with benzene and set it away in a thermostat at 20° for 30 min. Adjust the level to the mark and weigh. The d. of the coke is computed by the formula $d_t = r\,d_b/r + r_1 - r_2$, where d_b is the d. of the benzene at 20°, r the wt. of the coke sample, r_1 the wt. of the pyknometer and the benzene, and r_2 the wt. of the pyknometer, benzene, and the coke. For detg. d_a select from the gross sample 20 pieces, 10 from the ends and 10 from the joint planes, not less than 50 nor more than 100 mm. long and about 50 mm. thick. Brush off dust and loosely adhering pieces, dry them to const. weight at 180 to 200° for 2 to 2.5 hrs., and weigh to an accuracy of 0.5 g. Place the samples in a nichrome cage with 1-mm. openings, and immerse,

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All-Ukrainian Sci Res Coal Chem. Inst.
(VUKhIN)

GRUZDEV, N. D.; KOZHEV[illegible]

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them in boiling water for 1.5 to 2 hrs. to expel the entrapped air and to fill the pores with water. Remove the cage and its contents from the bath and weigh them, immersed in water, to an accuracy of 1 g. Absorb adhering drops of moisture with a towel and weigh the samples, together with the cage, in air. The value of $d_a = G/(G_1 - g_1) - (G_2 - g_2)$, where G is the dry wt. of the coke sample, G_1 the wt. of the satd. coke and the cage in air, G_2 the wt. of the satd. coke and the cage in water, g_1 the wt. of the empty cage in air, and g_2 its wt. in water. An alternative method for detg. d_a with the use of the kerosine volumeter is described.

[illegible] T. C[illegible]

2/2

AUTHORS: Gruzdeva, N.A. and Osipova, T.A. 68-58-3-12/22

TITLE: On the Colorimetric Method of Determining Benzole Losses in Coke Oven Gas (O kolorimetricheskom metode opredeleniya poter' benzola s obratnym gazom)

PERIODICAL: Koks i Khimiya, 1958, Nr 3, pp 44 - 45(USSR).

ABSTRACT: This is a criticism of the paper by F.P. Nikonyuk, under the same title (Koks i Khimiya, 1956, Nr 2). The present authors checked the method of colorimetric determination of benzole hydrocarbons in coke oven gas and found it unsuitable for the purpose. There is 1 table.

ASSOCIATION: VUKhIN

Card 1/1

SOV/68-58-2-12/20

AUTHORS: Gruzdeva, N.A., Khokhlova, L.A. and Shevchenko, V.G.

TITLE: Determination of Naphthalene in Coke-oven Gas (Opredeleniye naftalina v koksovom gaze)

PERIODICAL: Koks i Khimiya, 1959, Nr 2, pp 43 - 48 (USSR)

ABSTRACT: Standard methods of determining naphthalene are criticised. The authors carried out some experimental work in order to develop a more accurate method for the determination of naphthalene in scrubbed coke-oven gas. The picrate method was taken as a basis and the influence of the following factors on the accuracy of determination was studied: method of purifying gas from accompanying naphthalene compounds and experimental conditions such as filtration of naphthalene picrate, titration of picric acid obtained from the decomposition of naphthalene picrate and increased velocity of gas during absorption of naphthalene. The experimental results are given in Tables 1-3. The possibility of obtaining more accurate results by the picrate method with the following modifications was established: a) filtering off of the naphthalene picrate obtained should be done using a crucible with a porous bottom (Nr 3) which considerably reduces losses of the precipitate (in the standard method, double filter paper

Card1/2

Determination of Naphthalene in Coke-oven Gas SOV/68-58-2-12/20

is recommended); b) titration of the picric acid formed on the decomposition of naphthalene picrate should be done iodometrically; the neutralisation moment is determined on the basis of a sharp change from green to yellow colour; c) the absorption of naphthalene from gas can be done at velocities of about 100 litres/hour, which shortens the analysis from 10-12 hours to 3-4 hours; d) before the absorption gas should be purified from accompanying naphthalene compounds which are able to form complexes with aqueous solution of picric acid with 75% solution of sulphuric acid. There are 2 figures and 3 tables.

ASSOCIATION: VUKhIN

Card 2/2

GRUZDEVA, N.A.; KHOKHLOVA, L.A.

Method of determining nitric oxide in coke-oven gas. Koks i khim.
no.4:44-48 '60. (MIRA 13:6)

1. Vsesoyuznyy uglekhimicheskiy institut.
(Nitrogen oxide) (Coke-oven gas--Analysis)

GRUZDEVA, N.A.; KHOKHLOVA, L.A.

New method of analysis of sodium phenolates. Koks i khim. no.8: 48-52 '60. (MIRA 13:8)

1. Vostochnyy uglekhimicheskiy institut.
(Sodium phenoxide)

GRUZDEVA, N.A.

Investigation on streptomycin resistance of Mycobacterium tuberculosis. Probl. tuberk., Moskva No.6:39-45 Nov.-Dec. 1953.
(CIML 25:5)

1. Of Moscow Oblast Scientific-Research Tuberculosis Institute (Acting Director -- N.P. Gurskiy; Scientific Assistant to Director -- D.D. Aseyev).

GRUZDEVA, N.A. (Moskva)

Some comments on A.P. Gordina's article "Quick method for determinating the streptomycin and phthivazid resistance of tuberculosis bacilli in sputum." Lab.delo 4 no.5:32 S-O '58 (MIRA 11:11)
(MYCOBACTERIUM TUBERCULOSIS)